

Date: Tuesday, 11/6/2007 3:42:05 PM  
User: Kim Johnston

## Process Sheet

Customer : CU-DAR001 Dart Helicopters Services- Drawing Name : BLADE FITTING  
Job Number : 35587  
Estimate Number : 12300  
P.O. Number :  
This Issue : 11/6/2007 S.O. No. :  
Prsht Rev. : NC Part Number : D3488042  
First Issue : 1/1 Type : MACHINED PARTS Drawing Number : D3488 / DSK101  
Previous Run : 32233 Drawing Revision : B / D  
Material :  
Due Date : 12/5/2007 Qty: 12 Um: Each  
Written By :  
Checked & Approved By : 11.07  
Comment : Est Rev:A New Issue 06-02-28 JLM  
Est Rev:B As per Rev B 06-03-30 JLM

## Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0 D6103003 alum billet



Comment: Qty.: 1.0000 Each(s)/Unit Total : 12.0000 Each(s)

Alluminum Round Billet D6103-003

Batch: 33953

J.F. 07/12/31 (12)

2.0 MORI SEIKI MORI SEIKI CNC LATHE LARGE



Comment: MORI SEIKI CNC LATHE LARGE

1-Turn as per Dwg DSK 101 & Folio FA627

2-Deburr

J.F. 07/12/31 (12)

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

J.F. 07/12/31 (12)

4.0 HAAS1 HAAS CNC VERTICAL MACHINING #1



\* Comment: HAAS CNC VERTICAL MACHINING #1

1-Machine as per Folio FA627 & Dwg D3488

2-Deburr

SA 08/01/08

(11) P10

5.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

SA 08/01/08

(11)

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D 3488-042 PAR #: N/A Fault Category: Prod / machined parts NCR: Yes No DQA: D Date: 08/01/08  
 QA: N/C Closed: X Date: 08/01/28

NCR: <u>35587</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
<u>08/01/08</u>	<u>4.0</u>	<u>part scrap</u> <u>part not sitting properly</u> <u>in 4th axis chuck. chuck</u> <u>did not close correctly.</u> <u>Tool got caught in the part,</u> <u>and stopped the part from turning,</u> <u>and the other tool came in to</u> <u>machine.</u>	<u>[Signature]</u> <u>08/01/09</u>	<u>Scrap -&gt; no replace</u> <u>Qty (X)</u>	<u>SD</u> <u>08.01.08</u>	<u>[Signature]</u> <u>08/01/09</u>	<u>[Signature]</u> <u>08/01/08</u>	

NOTE: Date & initial all entries

Date: Tuesday, 11/6/2007 3:42:05 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 35587

Part Number: D3488042

Job Number:



Seq. #:

Machine Or Operation:

Description :

6.0

QC8

SECOND CHECK



Comment: SECOND CHECK

*FL 08-01-11*

(11)

7.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*M-L 08/01/15*

(11X)

8.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

*FL 08/01/17*

(11)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*BR 08-01-17*

(11)

10.0

ALS71032225

INSERT



Comment: Qty.: 4.0000 Each(s)/Unit Total: 48.0000 Each(s)

Pick:

Qty Part Number Description Batch

4 ALS7-1032-225 Insert

*M 100489*

*FL*

11.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Install Inserts as per Dwg D3488

*FL 08/01/21*

(11)

12.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*FL 08/01/21*

(11X)

13.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

*F-P 22*

*M-L 08/01/21*

(11X)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Tuesday, 11/6/2007 3:42:05 PM  
User: Kim Johnston

## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: BLADE FITTING

Job Number: 35587

Part Number: D3488042

Job Number:



Seq. #:

Machine Or Operation:

Description :

14.0

QC21

FINAL INSPECTION/W/O RELEASE



08.01.22 *[Signature]*

Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



6 08.01.22

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

<b>DART AEROSPACE LTD</b>		<b>Work Order:</b> 35587
<b>Description:</b> Blade Fitting, RH		<b>Part Number:</b> D3488-2
<b>Inspection Dwg:</b> D3488 <b>Rev:</b> B		<b>Page 1 of 1</b>

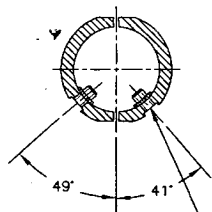
### FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article      ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.125	+/-0.010	.127	—			
2.620	+/-0.010	2.624	—			
0.793	+/-0.010	0.801	—			
1.351	+/-0.010	1.350	—			
1.317	+/-0.010	1.321	—			
90°	+/-0.1°	90°	—			
1.802	+/-0.010	1.803	—			
Ø0.508	+0.006/-0.001	Ø0.510	—			
R0.062	+/-0.010	R0.062	—			
1.500	+/-0.010	1.498	—			
8.000	+0.030/-0.000	8.020	✓			
11.18	+/-0.030	11.175	—			
Ø0.484	+0.005/-0.001	Ø0.488	—			
1.180	+/-0.010	1.179	—			
3.150	+/-0.010	3.148	—			
3.070	+/-0.010	3.068	—			
0.590	+/-0.010	.588	—			
0.125	+/-0.010	.124	—			
1.005	+/-0.010	1.005	—			
3.500	+/-0.010	3.500	—			
Ø0.297	+0.005/-0.000	Ø0.299	—			
Ø0.430	+/-0.010	Ø0.437	—			
0.100	+/-0.010	0.105	—			

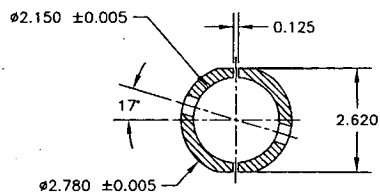
<b>Measured by:</b> J.F. / Jme	<b>Audited by:</b> SA	<b>Prototype Approval:</b>	N/A
<b>Date:</b> 08/01/07	<b>Date:</b> 08/01/08	<b>Date:</b>	N/A

Rev	Date	Change	Revised by	Approved
A	06.03.31	New Issue	KJ/JLM	Jme



SECTION B-B

Ø0.297  
C'BORE Ø0.430 x 0.100  
INSTALL ALS4-1032-225 (OR AKS4-1032-225  
OR ALS7-1032-225 OR AKS7-1032-225)  
INSERTS AFTER FINISH  
(4 PLACES)



SECTION A-A

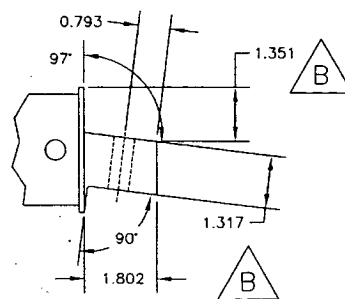
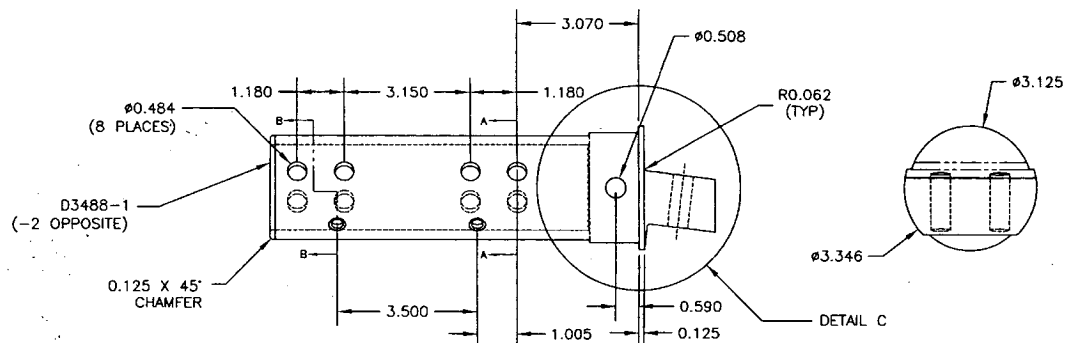
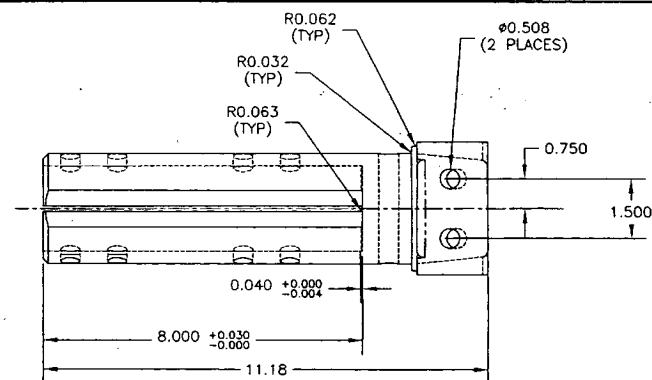
**D3488-041/-042 BLADE FITTING ASSEMBLY PARTS LIST**

QTY -041	QTY -042	PART NUMBER	DESCRIPTION
X		D3488-041	BLADE FITTING ASSEMBLY (LH)
	X	D3488-042	BLADE FITTING ASSEMBLY (RH)
1		D3488-1	BLADE FITTING (LH)
	1	D3488-2	BLADE FITTING (RH)
4	4	ALS4-1032-225 or AKS4-1032-225 or ALS7-1032-225 or AKS7-1032-225	INSERT

**D3488-041/-042 BLADE FITTING**

- MATERIAL: MAKE D3488-1/-2 FROM ALUMINUM 7075-T7351 ROUND BAR  
PER QQ-A-225/9  
(REF. DART MATERIAL SPEC M7075T73R)  
ACID ETCH, ALODINE PER DART QSI 005 4.1  
POWDER COAT WHITE (REF 4.3.5.1) PER DART QSI 005 4.3
- FINISH:
- BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- INSTALL INSERTS AFTER POWDER COAT
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

NO. 35587  
 WORK ORDER  
 UNCONTROLLED COPY  
 SUBJECT TO APPROVAL  
 WITHOUT FILE



DETAIL C

D3488-041 SHOWN (D3488-042 OPPOSITE)

**RELEASED**  
 06.03.15 PH  
 PER OS  
 ESN #789

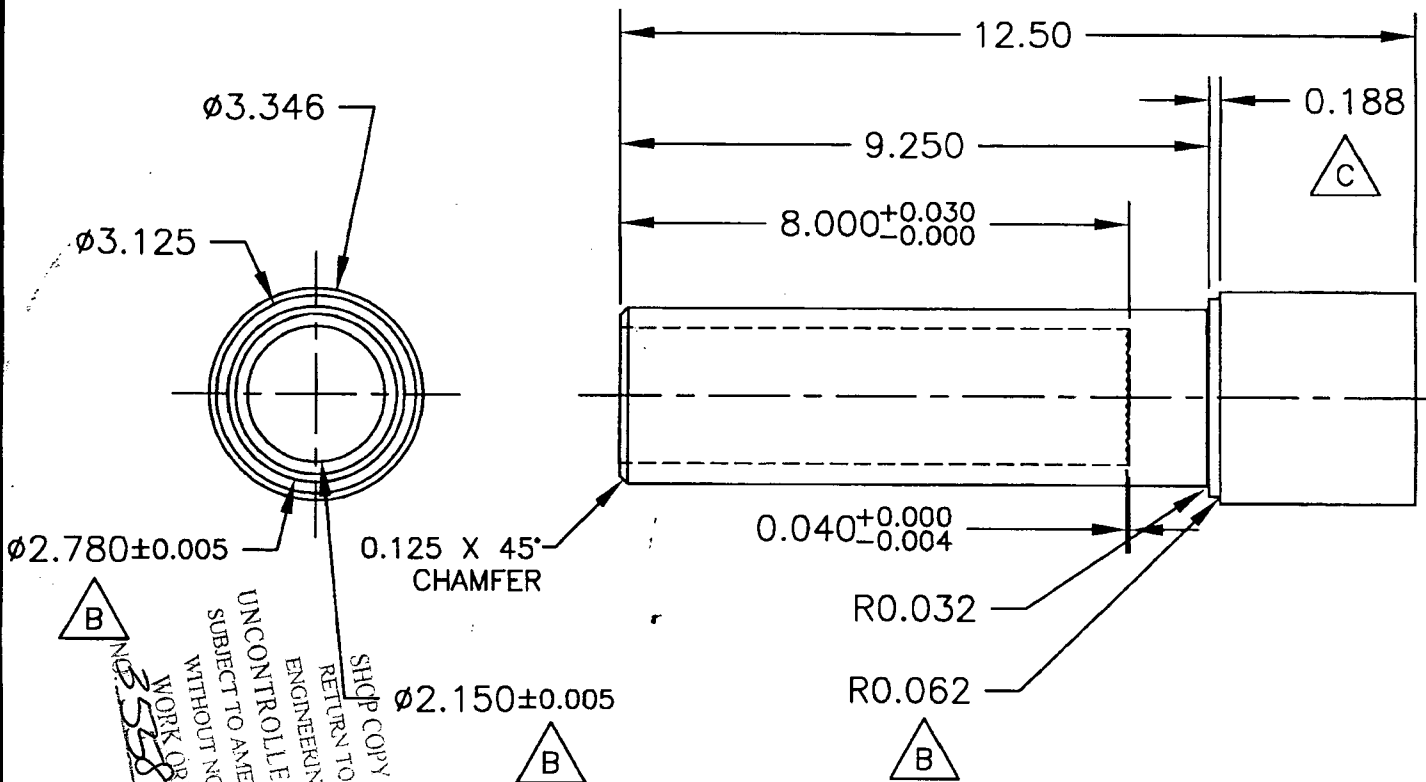
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B	06.03.15	CHANGE THICKNESS
A	05.12.20	NEW ISSUE
DESIGN	PH	DRAWN BY PH
CHECKED	PH	APPROVED PH
DATE	06.03.15	TITLE
		BLADE FITTING
		DART AEROSPACE USA, INC. PORT HADLOCK, WA
		DRAWING NO. D3488
		REV. B
		SHEET 1 OF 1
		SCALE
		1:3



# DART

DESIGN	DRAWN BY		DART AEROSPACE USA, INC. PORT HADLOCK, WA	
CHECKED	APPROVED	DRAWING NO.	REV. D	
		DSK 101	SHEET 1 OF 1	
DATE	TITLE		SCALE	
06.05.09	D3488-1/-2 TURNING DETAIL		1:3	
A	05.12.21	NEW ISSUE		
B	06.03.02	ADD TOLERANCES AND RADIUS		
C	06.04.17	0.188 WAS 0.125		
D	06.05.09	REMOVE DIAMETER FOR CHAMFER		



- 1) MATERIAL: <sup>1/2</sup>IN MAKE FROM ALUMINUM 7075-T7351 ROUND BAR PER QQ-A-225/9  
(REF. DART MATERIAL SPEC M7075T73R)
- 2) FINISH: NONE
- 3) BREAK UNMARKED SHARP EDGES 0.010 TO 0.020
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

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